CALL FOR PAPERS | Special Issue of *Journal of Quantitative Criminology*

“Standard Errors in Quantitative Criminology: Taking Stock and Looking Forward”

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Quantitative criminology advances in three ways (Bushway & Weisburd, 2006): 1) the importation of statistical techniques from other fields, 2) introspection about the proper use of statistical techniques and 3) innovation of new statistical techniques. This special issue will combine the first two tasks by importing an introspective focus on common problems in quantitative research, as well as new methodological and statistical practices for addressing these problems, from other disciplines. Particularly in psychology there has been increasing focus on negative consequences of poor practices in null-hypothesis testing, with growing recognition that “false findings may be the majority or even the vast majority of published research claims” (Ioannidis, 2005: 0696).

Widespread publication of false-positive results is largely a result of the over-emphasis on statistical significance (Simmons, Nelson and Simonsohn, 2011), and consequent widespread use of questionable research practices (QRPs), such as “p-hacking” (Head et al., 2015) and the selective reporting of findings (Francis, 2014; John et al., 2012). Additionally, there is a high prevalence of statistical errors in published research, and these errors are not random, but rather are systematically biased toward inflating significance levels (Bakker and Wicherts, 2011; Garcia-Berthou and Alcaraz, 2004). On top of this, meta-analytic evidence shows that around 2% of scientists admit to fabricating or falsifying data (Fanelli, 2009). The overall result is a body of research that cannot be used for the advancement of knowledge because of its low credibility (Ioannidis, 2005). Exacerbating this situation is the low prevalence of replication efforts in most fields, which means that false positives become “particularly persistent” in the literature, once published (Simmons et al., 2011: 1359). For example, in the field of criminology and criminal justice, only about 2% of research findings are ever replicated (Mcneeley and Warner, 2015), which is only marginally higher than in other fields (Makel et al., 2012).

Responses to this “credibility crisis” have included large-scale replication projects (Open Science Collaboration, 2012), banning p-values altogether (Trafimow & Marks, 2015), recommending best practices for researchers (Miguel et al., 2014), implementing editorial polices to curb the problem (Nosek et al., 2015), requiring the sharing of data (Alsheikh-Ali et al., 2011; Krawczyk and Reuben, 2012), and restructuring researcher incentives (Nosek, Spies and Motyl, 2012). Nearly all of this literature is outside the field of criminology. The extent to which these problems apply to criminological research is not known. In this special issue we invite papers that examine such issues within quantitative criminology and suggest ways forward.

Papers in this special issue can replicate study designs from other disciplines, update findings from criminology, or create new research designs that explore these issues. These papers will fall into three groups: 1) papers that identify the causes of false positives in criminology, 2)
papers that document the prevalence of false positives in criminology, and 3) papers discussing, detailing and demonstrating best practices for moving the discipline forward. We expect each of these topic areas will be addressed by at least 2 articles in the special issue.

All papers will be subject to the normal blind review process at JQC.

Submissions due: May 1, 2017

Below are examples of papers that may be replicated, updated or revisited for this special issue. For further information, please contact one of the guest editors.
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1) Manuscripts that Identify the Causes of False Positives


Wicherts, Jelte M., Marjan Bakker and Dylan Molenaar. 2011. Willingness to share research data

2) Manuscripts that Document the Prevalence of False Positives


**Francis, Gregory. 2014.** The frequency of excess success for articles in *Psychological Science* 21:1180-1187.


3) Manuscripts Discussing, Detailing, and Demonstrating Best Practices for Moving the Discipline Forward


**Cumming, Geoff. 2008.** Replications and p intervals: p values predict the future only vaguely, but confidence intervals do much better. *Perspectives on Psychological Science* 3(4): 286-300.


Additional References


Fanelli, Daniele. 2012. Negative results are disappearing from most disciplines and countries. *Scientometrics* 90:891-904.


